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FITZPATRICK CELLA HARPER & SCINTO  
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NEW YORK, NY 10112

EXAMINER
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RILEY, MARCUS T

ART UNIT	PAPER NUMBER
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2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/725,026	<b>Applicant(s)</b> OHSHIMA, KEITA	
	<b>Examiner</b> Marcus T. Riley	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12/02/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>attached</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

2. **Claim(s) 7 & 15** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 7 defines a computer-readable information managing program and claim 15 defines a computer-readable information processing program embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for

that reason (i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on “computer-readable medium” or equivalent; assuming the specification does NOT define the computer readable medium as a “signal”, “carrier wave”, or “transmission medium” which are deemed non-statutory (refer to “note” below). Any amendment to the claim should be commensurate with its corresponding disclosure.

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent;

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. **Claims 1-3, 5-10 and 12-15** rejected under 35 U.S.C. 102(e) as being clearly anticipated by Roticil et al. (US 6,995,860 B2 hereinafter, Roztocil '860).

**Regarding claim 1;** Roztocil '860 discloses an information managing apparatus which is connected to an information processing apparatus and image processing apparatuses, comprising: (*"...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and managing insertion of ordered media into a document in a production printing workflow management system..."* column 2, lines 39-43); receiving means for receiving a print document and an instruction manual from said information processing apparatus, in which layout information of said print document and attribute information of each of said layout information are included in said instruction manual (*"Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover."* column 3, line 67 thru

column 4, lines 1-12); and selecting means for selecting the image processing apparatuses to which said arranged print document should be outputted on the basis of said instruction manual (*"In the preferred embodiments, edits or annotations can be created or manipulated by pointing to a visual representation of the document and/or pages within the document and selecting, dragging, dropping or clicking the representation and/or selecting from a menu of options, where the selection of a particular option causes the associated edit or annotation to be applied to the specified portions of the document. Alternatively, a palette of options may be displayed from which the user may choose an option to apply to selected portions of the document. Further, the interface may provide for a dialog box or other visual control for inputting control values for the edit or annotation such as the starting number of a Bates range."* column 10, line 67 thru column 11 lines 1-13).

**Regarding claim 2;** Roztocil '860 discloses where said attribute information is color information (*"The print server engine performs the automated processes of the print server. These processes include spooling and queuing jobs and job content (i.e. the document), directing the jobs to specific production output devices based on the attributes of the print job and how these attributes are satisfied by the print engine, load balancing jobs among the various production output devices to keep all printers fully utilized, e.g. to split color from black and white jobs, and acting as a communication gateway where it can accept multiple input communication and print protocols translating them to the communication and print protocol the production output device 122 understands."* column 8, lines 2-16).

**Regarding claim 3;** Roztocil '860 discloses where said layout information includes one of sheet information, page information, and annotation information (*"In addition, the job*

*preparation station 116 allows the operator to manage and layout the document pages for final output, also known as "imposition" and "signature imposition". In addition, the operator can shuffle pages, reverse pages, insert blank pages, trim and shift pages, create bleeds and place multiple pages on a sheet, also known as "n-up" to create proof sets, brochures or pamphlets, etc. Further the job preparation station 116 permits the operator to add annotations to the document such as Bates numbers, page numbers, logos and watermarks. All of these service add value to the final output."* column 7, lines 10-17).

**Regarding claim 5;** Roztocil '860 discloses where said instruction manual is text data described by a markup language ("*...the page features stick to the page and follow it where ever it goes. Mobile page features are implemented by embedding them within an unused portion of the ready for printer format code. Preferably this is done using an extensible markup language ("XML")*") column 11, lines 64-67 thru column 18 line 1).

**Regarding claim 6;** Roztocil '860 discloses an information managing method for an information managing apparatus which is connected to an information processing apparatus and image processing apparatuses, comprising: ("*...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and managing insertion of ordered media into a document in a production printing workflow management system...*") column 2, lines 39-43); a receiving step of receiving a print document and an instruction manual from said information processing apparatus, in which layout information of said print document and attribute information of each of said layout information are included in said instruction manual ("*Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can*

*occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover.” column 3, line 67 thru column 4, lines 1-12); and a selecting step of selecting the image processing apparatuses to which said arranged print document should be outputted on the basis of said instruction manual (“In the preferred embodiments, edits or annotations can be created or manipulated by pointing to a visual representation of the document and/or pages within the document and selecting, dragging, dropping or clicking the representation and/or selecting from a menu of options, where the selection of a particular option causes the associated edit or annotation to be applied to the specified portions of the document. Alternatively, a palette of options may be displayed from which the user may choose an option to apply to selected portions of the document. Further, the interface may provide for a dialog box or other visual control for inputting control values for the edit or annotation such as the starting number of a Bates range.” column 10, line 67 thru column 11 lines 1-13).*

**Regarding claim 7;** Roztocil ‘860 discloses a computer-readable information managing program for an information managing apparatus which is connected to an information processing apparatus and image processing apparatuses, comprising: (“...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and



*managing insertion of ordered media into a document in a production printing workflow management system..." column 2, lines 39-43); a receiving step of receiving a print document and an instruction manual from said information processing apparatus, in which layout information of said print document and attribute information of each of said layout information are included in said instruction manual ("Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover." column 3, line 67 thru column 4, lines 1-12); and a selecting step of selecting the image processing apparatuses to which said arranged print document should be outputted on the basis of said instruction manual ("In the preferred embodiments, edits or annotations can be created or manipulated by pointing to a visual representation of the document and/or pages within the document and selecting, dragging, dropping or clicking the representation and/or selecting from a menu of options, where the selection of a particular option causes the associated edit or annotation to be applied to the specified portions of the document. Alternatively, a palette of options may be displayed from which the user may choose an option to apply to selected portions of the document.*

*Further, the interface may provide for a dialog box or other visual control for inputting control values for the edit or annotation such as the starting number of a Bates range.” column 10, line 67 thru column 11 lines 1-13).*

**Regarding claim 8;** Roztocil ‘860 discloses an information processing apparatus for transmitting a print document to an information managing apparatus which is connected to image processing apparatuses, comprising: forming means for forming an instruction manual for said print document, in which said instruction manual includes layout information of said print document and attribute information of each of said layout information (*“Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover.”* column 3, line 67 thru column 4, lines 1-12); and transmitting means for transmitting said formed print document and instruction manual (*“The converted documents are then passed to preflight stage 204 where they are prepared for production. This transfer of converted documents can occur by moving the documents to a special directory on the network server 118 where they can be accessed by the*

*job preparation stations 116 or by transmitting the documents to the job preparation station 116." column 8, lines 50-56).*

**Regarding claim 9;** Roztocil '860 discloses where said attribute information is color information (*"The print server engine performs the automated processes of the print server. These processes include spooling and queuing jobs and job content (i.e. the document), directing the jobs to specific production output devices based on the attributes of the print job and how these attributes are satisfied by the print engine, load balancing jobs among the various production output devices to keep all printers fully utilized, e.g. to split color from black and white jobs, and acting as a communication gateway where it can accept multiple input communication and print protocols translating them to the communication and print protocol the production output device 122 understands."* column 8, lines 2-16).

**Regarding claim 10;** Roztocil '860 discloses where said layout information includes one of sheet information, page information, and annotation information (*"In addition, the job preparation station 116 allows the operator to manage and layout the document pages for final output, also known as "imposition" and "signature imposition". In addition, the operator can shuffle pages, reverse pages, insert blank pages, trim and shift pages, create bleeds and place multiple pages on a sheet, also known as "n-up" to create proof sets, brochures or pamphlets, etc. Further the job preparation station 116 permits the operator to add annotations to the document such as Bates numbers, page numbers, logos and watermarks. All of these service add value to the final output."* column 7, lines 10-17).

**Regarding claim 12;** Roztocil '860 discloses where said instruction manual is text data described by a markup language (*"...the page features stick to the page and follow it where ever*

*it goes. Mobile page features are implemented by embedding them within an unused portion of the ready for printer format code. Preferably this is done using an extensible markup language ("XML")*" column 11, lines 64-67 thru column 18 line 1).

**Regarding claim 13;** Roztocil '860 discloses an apparatus further comprising editing means for editing said formed instruction manual, and wherein attributes of each of said layout information is changed on the basis of the layout information edited by said editing means and said attribute information (*"Job preparation 106 involves preparing the documents for printing according to the instructions in the ticket. For documents that are submitted in hard copy form, job preparation 106 may include scanning the documents and creating a faithful and error free electronic reproduction. The documents, once in electronic form, must also be distilled down/normalized i.e., converted into a common file format that the print shop can use to both edit and print the documents."* column 5, lines 13-20).

**Regarding claim 14;** Roztocil '860 discloses an information processing method for an information processing apparatus for transmitting a print document to an information managing apparatus which is connected to image processing apparatuses, comprising: (*"...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and managing insertion of ordered media into a document in a production printing workflow management system..."* column 2, lines 39-43); a forming step of forming an instruction manual for said print document, in which said instruction manual includes layout information of said print document and attribute information of each of said layout information (*"Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a*

*customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover."*

column 3, line 67 thru column 4, lines 1-12); and a transmitting step of transmitting said formed print document and instruction manual ("*The converted documents are then passed to preflight stage 204 where they are prepared for production. This transfer of converted documents can occur by moving the documents to a special directory on the network server 118 where they can be accessed by the job preparation stations 116 or by transmitting the documents to the job preparation station 116.*" column 8, lines 50-56).

**Regarding claim 15;** Roztocil '860 discloses a computer-readable information processing program for an information processing apparatus for transmitting a print document to an information managing apparatus which is connected to image processing apparatuses, comprising: ("*...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and managing insertion of ordered media into a document in a production printing workflow management system...*" column 2, lines 39-43); a forming step of forming an instruction manual for said print document, in which said instruction manual includes layout information of said print document and attribute information of each of said layout information ("*Job origination 102 is the procedural stage of receiving the documents and*

*instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover." column 3, line 67 thru column 4, lines 1-12); and a transmitting step of transmitting said formed print document and instruction manual ("The converted documents are then passed to preflight stage 204 where they are prepared for production. This transfer of converted documents can occur by moving the documents to a special directory on the network server 118 where they can be accessed by the job preparation stations 116 or by transmitting the documents to the job preparation station 116." column 8, lines 50-56).*

**Claim Rejections - 35 USC § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Roztocil '860 in combination with Hirota et al. (US 5,973,802 hereinafter, Hirota '802)

**Regarding claim 4;** Roztocil '860 discloses an information managing apparatus which is connected to an information processing apparatus and image processing apparatuses, comprising: (*"...the preferred embodiments described below relate to an interface, implemented in a computer, for representing and managing insertion of ordered media into a document in a production printing workflow management system..."* column 2, lines 39-43); receiving means for receiving a print document and an instruction manual from said information processing apparatus, in which layout information of said print document and attribute information of each of said layout information are included in said instruction manual (*"Job origination 102 is the procedural stage of receiving the documents and instructions, which together are defined as a "job", from the customer. Job origination 102 can occur when a customer physically brings his job, whether in hard copy or electronic form, to the print shop or otherwise transmits the job to the print shop, whether by phone, fax, postal mail, electronic mail or over a local area or wide area network such as over the Internet. Note that a job may contain more than one document and more than one set of instructions. For example, a job may contain many documents, each being one chapter of a book, along with a document containing a cover for the book. This exemplary job may include the instructions for producing the body of the book from the individual chapter documents and another set of instructions for producing the cover."* column 3, line 67 thru column 4, lines 1-12); and selecting means for selecting the image processing apparatuses to which said arranged print document should be outputted on the basis of said instruction manual (*"In the preferred embodiments, edits or annotations can be created or manipulated by pointing to a visual representation of the document and/or pages within the document and selecting, dragging, dropping or clicking the representation and/or selecting from a menu of options,*

*where the selection of a particular option causes the associated edit or annotation to be applied to the specified portions of the document. Alternatively, a palette of options may be displayed from which the user may choose an option to apply to selected portions of the document. Further, the interface may provide for a dialog box or other visual control for inputting control values for the edit or annotation such as the starting number of a Bates range.” column 10, line 67 thru column 11 lines 1-13).*

Roztocil ‘860 does not expressly disclose where said image processing apparatuses which are selected by said selecting means include a color image processing apparatus and a monochromatic image processing apparatus.

Hirota ‘802 discloses where said image processing apparatuses which are selected by said selecting means include a color image processing apparatus and a monochromatic image processing apparatus (“A plurality of designation means are provided in the image forming apparatus, where the first designation means designates first mixing coefficients of the image data of red, green and blue and a first reproduction color for forming a monochromatic image of the document, and the second designation means designates second mixing coefficients of the image data of red, green and blue, different from the first mixing coefficients, and a second reproduction color for forming a monochromatic image of the document. For example, the first designation means is selected automatically when it is decided that a document is a monochromatic document, and the second designation means is manually selected when a monochromatic copy is desired by a user. Then, gradation data for monochromatic reproduction are generated from the digital image data by using the first or second mixing coefficients, and an image is formed according to the gradation data. Thus, if the same color is designated as the



*first reproduction color and as the second one, the first mixing coefficients are different from the second ones, and different gradation data for monochromatic reproduction are generated for the first and second mixing coefficients.*" column 1, lines 64-67 thru column 2, lines 1-18).

Roztocil '860 and Hirota '802 are combinable because they are from same field of endeavor of image forming apparatuses (*"In one aspect of the invention, an image forming apparatus, which forms a full color image, forms a monochromatic image according to digital image data of red, green and blue of a document and mixing coefficients therefor."* Hirota '802 at column 1, lines 51-55).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the onboard communication unit as taught by Roztocil '860 by adding where said image processing apparatuses which are selected by said selecting means include a color image processing apparatus and a monochromatic image processing apparatus as taught by Hirota '802.

The motivation for doing so would have been because it advantageous to provide an image forming apparatus which forms a monochromatic image having gradation data according to an intent or a desire of a user (*"An object of the present invention is to provide an image forming apparatus which forms a monochromatic image having gradation data according to an intent or a desire of a user."* Hirota '802 at column 5, lines 1-2).

Therefore, it would have been obvious to combine Roztocil '860 with Hirota '802 to obtain the invention as specified in claim 1.

**Regarding claim 11;** Hirota '802 discloses where said image processing apparatuses which are selected by selecting means include a color image processing apparatus and a monochromatic image processing apparatus (*"A plurality of designation means are provided in the image forming apparatus, where the first designation means designates first mixing coefficients of the image data of red, green and blue and a first reproduction color for forming a monochromatic image of the document, and the second designation means designates second mixing coefficients of the image data of red, green and blue, different from the first mixing coefficients, and a second reproduction color for forming a monochromatic image of the document. For example, the first designation means is selected automatically when it is decided that a document is a monochromatic document, and the second designation means is manually selected when a monochromatic copy is desired by a user. Then, gradation data for monochromatic reproduction are generated from the digital image data by using the first or second mixing coefficients, and an image is formed according to the gradation data. Thus, if the same color is designated as the first reproduction color and as the second one, the first mixing coefficients are different from the second ones, and different gradation data for monochromatic reproduction are generated for the first and second mixing coefficients."* column 1, lines 64-67 thru column 2, lines 1-18).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus T. Riley whose telephone number is 571-270-1581. The examiner can normally be reached on Monday - Friday, 7:30-5:00, est.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler L. Haskins can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Marcus T. Riley  
Assistant Examiner  
Art Unit 2625

  
TWYLER LAMB HASKINS

SUPERVISORY PATENT EXAMINER